

# Staff Report

Devens  
Enterprise  
Commission

**Date:** January 19, 2021

**To:** **Devens Enterprise Commission**

**Cc:** Peter Lowitt, DEC Director;

**From:** Neil Angus, Environmental Planner

**RE:** **111 Hospital Road – CFS-1 Level 2 Unified Permit – Continued Public Hearing**

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**Owner/App.:** MassDevelopment Finance Agency/ King Street Properties Acquisitions, LLC.

**Location:** 111 Hospital Road, Devens, MA

**Zoning:** Innovation & Technology Business District, Watershed & Aquifer Water Resources Protection Overlay District

**Proposed Project Recap:** +/- 164,000 gross square foot manufacturing and office building, parking, drainage, and associated site improvements (CFS-1). The proposed CFS-1 building will produce advanced magnets, a key component of Commonwealth Fusion Systems tokamak fusion reactor research and development project proposed as part of a separate Level 2 Unified Permit application (CFS-2). The CFS-1 building includes 60,000 square feet of office space that will serve as CFS' corporate offices and the remaining 104,000 square feet will be dedicated to manufacturing space for producing the magnets. CFS-1 is expected to employ 416 people and will include 288 surface parking spaces.

**Project Issues Resolved Since Last Meeting:**

Access/Traffic and Soil Management. These items are addressed in the draft conditions of approval.

**Public Safety:** The Applicant has provided additional supporting information that explains the proposed magnet production facility (CFS-1). CFS-1 will include process gases stored in outside bulk gas storage tanks. Process gasses include Helium, Nitrogen and Argon. These tanks will require permitting from the Devens Fire Department. The Fire Department has met with the Applicant and is reviewing plans and will require the necessary safeguards as part of the building permit process. Quantities of hazardous materials stored are not expected to trigger the need for a License for Storage of Flammables and Combustibles. A condition has been drafted to require the Applicant to develop a Hazardous Materials Spill Pollution Prevention Control and Countermeasures Plan as part of an overall facility operations and maintenance plan.

Access throughout the property is also being reviewed by the Devens Fire Chief. The proposed internal road network is still extremely wide (26'-30') in many areas. While these widths may be appropriate at security gates and corners to accommodate larger vehicles, the remainder of the internal road widths should be reduced to a maximum of 24' for two-way travel.

Since CFS-1 will be complete before CFS-2, the Applicant will need to prepare a site logistics plan that includes emergency access and traffic circulation, utility connections, stubs and how CFS-1 operations will be safely separated from CFS-2 construction activity.

**Industrial Performance Standards (IPS):**

To help avoid potential nuisance conditions, the Applicant has designed the facility with due consideration for the surrounding land uses. The closest sensitive receptors include the new housing on Grant Road, New England Studios, Aspire Adult Daycare facility, and the US Fish and Wildlife Service Oxbow National Wildlife Refuge Visitors Center.

**Lighting:** A revised lighting plan was submitted to reduce lighting intensities and include operational controls that will help reduce illumination levels and comply with the DEC Regulations. One light fixture is not compliant with the DEC

regulations (floodlight and will need to be changed to ensure it is downward directed and properly shielded to prevent any off-site glare.

**Noise:** The Applicant has conducted background sound measurements to establish a baseline ambient noise level. A preliminary noise modelling study of both CFS-1 and CFS-2 was just completed on 1-18-21. Noise – The sound study is sufficient to justify the operation of CFS-1 during the daytime hours defined as weekdays and non-holidays from 7 AM to 6 PM and remain in compliance at all residential and industrial receptors. The Applicants' ultimate intent is for CFS-1 to have the ability to operate in some capacity 24 hours per day, and the DEC peer review consultant feels that this is an attainable goal, but there are a number of equipment design features that are simply not known at this time. These features will need to be incorporated in lieu of, or in combination with, the proposed sound barriers and unmitigated equipment included in the current noise model to demonstrate compliance with the DEC IPS. The restriction on hours of operation for CFS-1 can be eliminated once the design progresses and further sound modeling details are provided to the DEC for review, and they are formally approved. To avoid potential nuisance conditions, nitrogen gas deliveries should be restricted to weekday daytime hours and the applicant should use ground-mounted pumps for off-loading, unless additional sound modelling demonstrates these restrictions are not necessary to comply with 974 CMR 4.05.

Should the undeveloped residential land owned by MassDevelopment across from Pine Street (currently being used for temporary soil storage by Emerson Green) off of Grant Road be developed in the future, the Applicant may need to provide additional mitigation to ensure compliance with 974 CMR 4.05. Due to the existing housing cap for Devens and other residentially zoned lands in Devens, it is unlikely that this area will be developed for residential anytime soon. This area may be best left as undeveloped open space to provide a better buffer between industrial and residential development.

**Electromagnetic Interference:** The proposed magnets being constructed are electromagnetic – meaning the magnetic field is activated when electrically charged. The Applicant states: “As a final quality check, each magnet will undergo electrical testing in a sealed cryogenic vessel at temperatures of 77 and 20 K. The worst-case estimate of the magnetic field of these magnets will range from 7 to 24 Tesla (will likely be operating at less than half of these fields) and the safety-critical Gauss lines will remain inside the building.” The Applicant has provided an analysis and evaluation that indicates the magnetic field intensity at the property line will be below typical background levels and therefore mitigation is not required. This information will need to be reviewed by the Massachusetts Radiation Control Program and Department of Public Health, in combination with the proposed CFS-2 facility as well to ensure there are no short or long-term impacts both on and off-site based on the actual combined operations and frequency of field generation.

**Air Emissions:** CFS-1 has conducted a preliminary assessment and does not anticipate exceeding Air Quality Permit thresholds. The Applicant submitted an Air Quality Assessment for CFS-2 with the original Unified Permit application. The Assessment concludes that the CFS-2 Project will not exceed any of the Air Quality Permit threshold requirements. The Applicant will need to document a comprehensive Air Quality Assessment that evaluates both facilities combined. This would be required prior to issuance of a building permit to ensure compliance with 974 CMR 4.02. This information will be reviewed by the Massachusetts Radiation Control Program and Department of Public Health as well. The facility will also be required to comply with the Massachusetts Anti-Idling law (5-minute restriction). Posting signage at all loading docks and drop-off areas notifying drivers of this requirement is helpful.

**Greenhouse Gas (GHG) Emissions:** In addition to stationary (building/facility) emissions, the traffic study indicates that the entire future build-out of the campus is expected to generate 3,122 weekday trips (mobile emissions). These impacts have to be considered cumulatively for the entire project. While CFS-1 and CFS-2 are on separate parcels and will be under separate ownership, they operate together. 974 CMR 4.11 requires projects that generate more than 2,000 average daily trips to comply with the MA Stretch Code (780 CMR 120AA) as amended. The Applicant will also be installing a white roof and using EPA Water Sense labeled Plumbing Fixtures. All these measures will help reduce energy use and subsequent GHG emissions.

**Devens Engineering and Utilities:** Devens Engineering and Utilities had a number of comments regarding proposed parcel boundaries, easements, existing and proposed utilities as part of the initial review. The project proposes internal private roadways that will connect to the Devens public streets so a condition has been drafted that requires the Applicant to coordinate construction of the proposed entrance and existing/proposed utility relocation, abandonment, and connection with MassDevelopment/Devens Public Works and Engineering.

**Stormwater Management:** The DEC peer review consultants have reviewed the revised site plan and stormwater management design and still believe there are more opportunities to incorporate more Low-Impact Development to comply with 974 CMR 4.08. This includes minimizing roadway widths and expanding proposed biofiltration landscape islands. These have been included as proposed conditions of approval. As the project disturbs greater than one acre, it will require a Construction General Permit from the EPA and a Construction Stormwater Pollution Prevention Plan to be prepared. These will be required as a condition of approval prior to commencement of any construction activity on-site.

**Accessibility:** The Devens Main Post Trails Plan also identifies Hospital Road as a pedestrian and bike connection so the Applicant should include public sidewalks along the frontage of the property. Sidewalk design will need to be coordinated with MassDevelopment/Devens Engineering and the future Hospital Road improvements.

**Parking:** Plans show 228 proposed parking spaces for the CFS-1 facility (1.76 spaces per 1,000 square feet of building area). The Applicant estimates that upon completion of CFS-1, the facility will employ 128 people and operate 9AM-6PM (single shift). At full production in 2025, the facility is expected to employ 321 people, with a maximum of 373 over 2 shifts. This presents opportunities for the proposed parking to be phased – instead of being built all at once. As the facility grows, parking needs may change. The Applicant has a robust Transportation Demand Management Program which may also help reduce parking demand. While not included as a condition, Staff would recommend the Applicant evaluate the option of phasing or deferring a portion of the proposed parking for future development if needed.

**Landscaping:** The DEC's peer review Landscape Architects have reviewed the plans for compliance with 974 CMR 3.04(8). There are a few issues with the limits of clearing, tree preservation and stabilization of steep fill slopes that need to be addressed in the final plans. These are fairly minor and can be addressed as conditions of approval. Preservation of existing mature vegetation will help further buffer this facility from surrounding land uses and reduce the amount of new landscape screening required.

**Phasing:** The approval of the Master Plan is conceptual in nature and any additional development beyond CFS-1 and CFS-2 will require additional Level 2 Unified Permit approvals from the DEC. This has been included as a draft condition.

**Waiver Requests:**

None. The Applicant withdrew their waiver requests.

**Application and Process:** Highpoint Engineering, on behalf of King Street Properties Acquisitions, LLC., submitted the Unified Permit Application on November 8, 2020 and the Determination of Completeness was issued on November 19, 2020. Copies of the application were received by the surrounding Towns on November 23, 2020. Legal notices were placed in Nashoba Publications on November 27, 2020 and December 4, 2020. All abutting property owners were duly notified by certified mail. The 30-day Town comment period expired on December 24, 2020. No comments have been received other than those from MassDevelopment and our Peer Review Consultants. The public hearing opened on December 15, 2020 and was continued to January 7, 2021 and continued again to January 19, 2021. 75 day review period for the DEC to act on this application ends on February 2, 2021.

**Recommended Action:** The 30-day town comment has expired. The Applicant's revised plans submitted on January 7, 2021 address a number of comments previously raised. The remaining open items can be addressed as conditions of Approval if the Commission is ready to act on this application. Once the Commission and public have had an opportunity to ask any questions and comments, the commission should either close the hearing, or continue it to January continue it to the January 26, 2021 meeting at 6:45PM if there is additional information still required. Staff has prepared a draft record of decision for the Commission's consideration this evening.